

1 WHAT IS CLAIMED IS:

2 1. A door leaf guiding assembly of a stacking system for a folding door
3 having multiple door leaves each having a top edge, a bottom edge and two
4 opposite ends, two side tracks holding the ends of the door leaves and a door leaf
5 lifting chain extending into each one of the side tracks to lift the door leaves, and
6 the door leaf guiding assembly comprising:

7 a top guiding bracket adapted to be mounted on each respective one of
8 the side tracks and having a slot with a top opening and a bottom opening to face
9 the respective one of the side tracks;

10 a roller assembly adapted to be mounted on each end of each respective
11 one of the door leaves and comprising

12 a top roller assembly comprising

13 a top mounting bracket having a side;

14 a top chain link attached to the side of the top mounting
15 bracket;

16 a connecting chain link mounted on the top chain link
17 and comprising two divisions of a chain, the chain divisions of the connecting
18 chain link pivotally connected to each other at a joint, and one of the chain
19 divisions adapted to be pivotally connected to the door leaf lifting chain; and

20 a fastener passing through the joint of the connecting
21 chain link, extending into the top chain link and fastened on the top mounting
22 bracket; and

23 a bottom roller assembly comprising

24 a bottom mounting bracket having a side;

1 an inside chain link being a chain division and mounted
2 on the side of the bottom mounting bracket; and

3 an outside chain link being a chain division, attached on
4 the inside chain link and arranged with the inside chain link in a stack; and

5 a stacking bracket mounted on the top guiding bracket and comprising

6 a top roller rail mounted on the top guiding bracket and having a
7 top edge; and

8 a bottom roller rail mounted on the top guiding bracket under the
9 top opening of the slot and having a top edge parallel to the top edge of the top
10 roller rail;

11 wherein the top chain link and the inside chain link respectively abut and
12 move on the top edges of the top and the bottom roller rails as the door leaves are
13 arranged in a stack on the stacking bracket.

14 2. The door leaf guiding assembly of a stacking system for a folding
15 door as claimed in claim 1, wherein the stacking bracket further comprises an
16 auxiliary bottom roller rail mounted on the top guiding bracket between the top
17 and the bottom roller rails, the auxiliary bottom roller has a bottom edge and the
18 bottom edge of the auxiliary bottom roller rail is parallel to the top edge of the
19 bottom roller rail, forms a channel communicated with the top opening of the
20 slot.

21 3. The door leaf guiding assembly of a stacking system for a folding
22 door as claimed in claim 2, wherein each of the top chain link, the inside chain
23 link and the outside chain link is a division of a roller chain, and the connecting
24 chain link has two divisions of a roller chain.